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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,469	08/24/2005	Thilo Kraemer	MSA-261	8210
7590		03/28/2008		
Horst M Kasper				
13 Forest Drive				
Warren, NJ 07059				
			EXAMINER	
			FULTON, CHRISTOPHER W	
			ART UNIT	PAPER NUMBER
			2841	
			MAIL DATE	DELIVERY MODE
			03/28/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/549,469

Applicant(s)

KRAEMER, THILO

Examiner

Christopher W. Fulton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,5,7 and 9-25 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,5,7,9,10 and 12-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I in the reply filed on 5/18/7 is acknowledged.

Claim Objections

2. Claims 3, 5, 7, 15, 21, 23, and 25 are objected to because of the following informalities:
Claim 3 is objected to at line 7 because "the electric motor" is claimed while claim 19 from which it depends only claimed "a motor" which is not consistent. Claim 3 line 11 ends in a period and claims must be in one sentence form. Claim 5 is objected to at line 2 because "the carriage" lacks proper antecedent basis. Claim 5 is objected to at line 3 because "an electric motor" is claimed while claim 2 from which it depends claims "a motor" which is not consistent, but appears to be a double recitation of an element. Claim 7 is objected to at line 2 because "the carriage" lacks proper antecedent basis. Claim 15 is objected to at line 4 because "an electric motor" is claimed while claim 12 from which it depends claims "a motor" which is not consistent, but appears to be a double recitation of an element. Claim 21 line 5 ends with two periods. Claim 23 is objected to at lines 9 and 11 because "the electric motor" is claimed while claim 22 from which it depends only claimed "a motor" which is not consistent. Claim 25 is objected to at line 7 because "the electric motor" is claimed while claim 19 from which it depends only claimed "a motor" which is not consistent. Claim 25 lines 11, 18, and 22 end in a period and claims must be in one sentence form. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

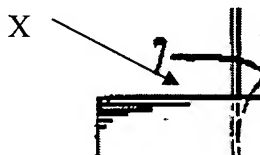
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 7, 9, 10, 12-15, 17-22, & 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gruhler (U.S. Patent 4924598) in view of Kaburagi et al. (U.S. Patent 5434602).

With reference to claims 2, 9, 10, 12-15, 19, 20, 22, & 24, Gruhler discloses a device and method of using for measuring the thickness of objects comprising a base (30) from which a column (1) rises vertically with a placement surface for the object (X, see below),



whereby a length-measuring system is arranged along the column comprising a continuously looped belt (5) mounted along the column on a carriage (3) (Figure 1) along a groove/guide (2) & rollers (6,7) (Figures 1 & 10); moved along the column by means of an electric motor (10) (Figure 2), while a projecting arm (4) engages the belt being able to accompany the movement of the belt for making contact with the object to be measured (Figure 1).

Gruhler does not disclose the belt is magnetic and provided with a plurality of pole pitches, with a stationary magnetic field sensor having an electric evaluation circuit on the base.

Kaburagi et al. discloses a recording apparatus with a magnetic linear encoder in the embodiment shown in Figure 60 with a looped scale (733) with pole pitches (col. 28 line 27) sensed by a stationary magnetic sensor (737) and a counting circuit (739) in order to read information on said scale without hindering any other component (col. 28 lines 36-40) and detect the speed and position of the carriage (732) (col. 28 lines 48-50). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the pole pitches, disclosed by Kaburagi et al. to the belt, and add the sensor and counting circuit disclosed by Kaburagi et al. to the base disclosed by Gruhler in order to not only detect that

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motion is occurring up or downward as Gruhler discloses (col. 6 lines 51-56), but that an absolute position value is known.

With reference to claims 7, 17, & 18, Gruhler does not disclose a tension spring that engages an end of the carriage and the other end engages the base.

Kaburagi et al. discloses a tension spring (746) engaged with the carriage (732) (through connection to the pulleys) in order to take up the scale (733) without slack (Figure 60)(col. 28 lines 33-35). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the tension spring disclosed by Kaburagi et al. to the rollers/carriage disclosed by Gruhler in order to take up the belt without slack.

With reference to claim 21, Gruhler does not disclose the lowest width of the placement area is larger than the smallest diameter of the object; wherein the width of the contact area of the contact arm is larger than the smallest diameter of the object. However, the size of the placement area and contact area, absent any criticality, are only considered to be obvious modifications of the shape of placement area and contact area disclosed by Gruhler as the courts have held that a change in size, without any criticality, is within the level of skill in the art as the particular size claimed by Applicant is nothing more than one of numerous sizes that a person having ordinary skill in the art will find obvious to provide using routine experimentation based on its suitability for the intended use of the invention. See *In re Rose*, 220 F.2d 459, 463, 105 USPQ 237, 240 (CCPA 1955). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to make the sizes of the placement area and contact area disclosed by Gruhler larger than the smallest diameter of the object being measured in order that the object is held in place securely when measured.

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5. Claims 3, 5, 16, 23, & 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gruhler & Kaburagi et al. as applied to claims 2, 7, 9, 10, 12-15, 17-22, & 24 above, and further in view of Hassell (U.S. Patent 6185832).

Gruhler & Kaburagi et al. disclose all of the instant claimed invention as stated above in the rejection of claims 2, 7, 9, 10, 12-15, 17-22, & 24, but does not disclose the movement means has teeth into which a drive cog wheel meshes.

Hassell discloses an apparatus (15) for callipering book signatures with a toothed belt (49) and drive cog wheel (50) (Figure 7) for driving movement without slippage and to maintain proper timing (col. 5 lines 1-3). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add teeth to the belt and drive wheel disclosed by Gruhler & Kaburagi et al. in order to drive movement without slippage and to maintain proper timing in measurement.

Conclusion

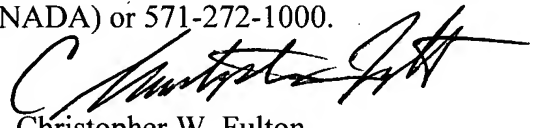
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. La Vigne and Jordil et al both clearly show a measuring device with a projecting arm that is opposite a base for the object to be measured to rest on during measurement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher W. Fulton whose telephone number is (571) 272-2242. The examiner can normally be reached on M-W,F 6:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A. Reichard can be reached on (571) 272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Christopher W. Fulton

Primary Examiner

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CWF